UNITED STATES DEPARTMENT OF COMMERCE
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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
~~07/130,097~~	~~12/07/87~~	~~WARD~~ ~~D~~	~~ENZ-1(CONT)~~

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EXAMINER	
CRANE, L	
ART UNIT	PAPER NUMBER
~~183~~	9

DATE MAILED: 03/25/91

This is a communication from the examiner in charge of your application.

COMMISSIONER OF PATENTS AND TRADEMARKS

☐ This application has been examined ☒ Responsive to communication filed on 12/24/90 ☒ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), ~~------~~ days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. ☐ Notice of References Cited by Examiner, PTO-892.
2. ☐ Notice re Patent Drawing, PTO-948.
3. ☐ Notice of Art Cited by Applicant, PTO-1449
4. ☐ Notice of informal Patent Application, Form PTO-152
5. ☐ Information on How to Effect Drawing Changes, PTO-1474
6. ☒ Merck Index pages.
7. [X] Manbeck's memo.

Part II SUMMARY OF ACTION

1. ☒ Claims 101-103, 110-112, 138, 139, 146-151 ~~are pending~~ in the application.

   Of the above, claims _____ are withdrawn from consideration.

2. ☐ Claims _____ have been cancelled.

3. ☐ Claims _____ are allowed.

4. ☒ Claims 101-103, 110-112, 139, 138, 146-151 are rejected.

5. ☐ Claims _____ are objected to.

6. ☐ Claims _____ are subject to restriction or election requirement.

7. ☐ This application has been filed with informal drawings which are acceptable for examination purposes until such time as allowable subject matter is indicated.

8. ☐ Allowable subject matter having been indicated, formal drawings are required in response to this Office action.

9. ☐ The corrected or substitute drawings have been received on _____. These drawings are ☐ acceptable; ☐ not acceptable (see explanation).

10. ☐ The ☐ proposed drawing correction and/or the ☐ proposed additional or substitute sheet(s) of drawings, filed on _____. has (have) been ☐ approved by the examiner. ☐ disapproved by the examiner (see explanation).

11. ☐ The proposed drawing correction, filed _____, has been ☐ approved. ☐ disapproved (see explanation). However, the Patent and Trademark Office no longer makes drawing changes. It is now applicant's responsibility to ensure that the drawings are corrected. Corrections MUST be effected in accordance with the instructions set forth on the attached letter "INFORMATION ON HOW TO EFFECT DRAWING CHANGES", PTO-1474.

12. ☐ Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. _____; filed on _____.

13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. ☐ Other

Claims **101-103, 110-112, 138-139 and 146-151** are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the prior invention as set forth in claims **1-21** of U.S. Patent No. 4,711,955. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims are directed to much of the same subject matter of the already patented claims.

The obviousness-type double patenting rejection is a judicially established doctrine based upon public policy and is primarily intended to prevent prolongation of monopoly by prohibiting claims in a second patent not patentably distinct from claims in a first patent. In re Vogel, 164 USPQ 619 (CCPA 1970). A timely filed terminal disclaimer in compliance with 37 CFR 1.321(b) would overcome an actual or provisional rejection on this ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.78(d).

Applicant's arguments filed December 24, 1990 have been fully considered but they are not deemed to be persuasive.

Applicant is requested to note that the submission of a competent request for terminal disclaimer must precede withdrawal of the rejection supra. Hence, the rejection is maintained and the instant office action made final in order to render the instant prosecution as compact as possible.

The disclosure is objected to because of the following informalities: Applicant is requested to carefully review both the specification and the claims (paper no. 3 particularly) for spelling errors.

Appropriate correction is required.

Applicant's arguments filed December 24, 1990 have been fully considered but they are not deemed to be persuasive.

Applicant's compliance with the request for replacement pages is noted. However, applicant is requested to comply with the instant request for the correction of the numerous spelling errors in paper no. 3, e.g. see purported errors at page 2, the first term of line 14 (claim **101**); page 2 the 7th term in line 22 (claim **102**); page 3, line 11, 3rd term (claim **110**).

Claims **101-103, 110-112, 138, 139, and 146-151** are rejected under 35 U.S.C. 112, first and second paragraphs, as the claimed invention is not described in such full, clear, concise and exact terms as to enable any person skilled in the art to make and use the same, and/or for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims **101 and 110,** the terms "purine", "deazapurine", and "pyrimidine" are unduly broad and indefinite in view of the vast arrays of structures these terms encompass in comparison with the very meager number of disclosed specific embodiments of the instant

specification. Applicant is requested to limit the scope of the instant claims to the specific embodiments.

In claims **101 & 110** the term "A represents a component of a detectable complex" is both indefinite and of excessive scope. Applicant fails to further define the upper limit on the size of "A" and also fails to further define in said claim what is intended by the term "detectable complex" in a manner commensurate with the implicit limitations of the instant disclosure.

In claims **101 & 110** the term "at least one" is indefinite and excessively broad due to its lack of accompanying claim language providing an upper bound.

In claim **101 & 110** the last three lines of said claim as amended in amendment B imply a multi-layered immunological sandwich(es) which is/are not described in enough detail for one of ordinary skill to know the metes and bounds of what is being claimed.

In claims **102 & 111** the term "a moiety which can be detected" is functional language so broad and indefinite as to be useless in determinations of the metes and bounds of what is being claimed.

In claim **138 and 139** the subject matter claimed is expanded further to include both 2',3'- and 3',5'-cyclic monophosphates, neither of which is represented by even a single specific embodiment.

In claim **146-148** the terms "A is a ligand" and dependent references thereto are both indefinite and unenabled in view one of

ordinary skill's inability to determine which "ligand[s]" applicant intends to claim?

In claim **149** the terms "detectable by means inherent in the polypeptide or by means of detectable moieties which are attached thereto" is both indefinite and unenabled in view one of ordinary skill's inability to determine the metes and bounds of the subject matter applicant intends to claim?

In claim **150** the term "a detectable moiety" is both indefinite and unenabled in view one of ordinary skill's inability to determine the metes and bounds of the subject matter applicant intends to claim?

In claim **151** the terms "enzyme", "substrate", and "detectable product" are both indefinite and unenabled in view one of ordinary skill's inability to determine the metes and bounds of the subject matter applicant intends to claim?

Appropriate correction is requested.

Applicant's arguments filed December 24, 1990 have been fully considered but they are not deemed to be persuasive.

Applicant is requested to note that the rejection concerning number of 7-deazapurines has been reconsidered and withdrawn. However, in order to provide applicant with basis for the numbering of one non-purine isoster (e.g. pyrrolo[2,3-d]pyrimidines claimed herein) a copy of two pages from the Merck Index have been enclosed for applicant's inspection.

As to the remaining bases for rejection, applicant is requested to note that the presence of indefinite and unenabled terminology in the specification does not justify its repetition in the claims (see terms including the term "detectable"). As to applicant contention that "detectable complexes" were "well known in the art at the time of filing" is a misstatement of the issue. As applicant is well aware, claim language is intended to legally define property boundaries, whereas the terminology of the art in common usage is not similarly constrained. Applicant is thus encouraged to reconsider sharpening the boundaries of the instant claimed subject matter by appropriate amendments in order to comply with the criticisms repeated supra.

In order for applicant to be aware of current office policy as regards communications with examiners generally, a copy of the Commissioner's memo regarding office policy in this matter has been enclosed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY

EXTENSION FEE PURSUANT TO 37 CFR 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner L. E. Crane whose telephone number is 703-**308-3999** .

Any inquiry of a general nature or relating to the status of this application should be directed to the Group 180 receptionist whose telephone number is 703-**308-0196** .

Applicant is advised that as of October 1, 1990 C&P Telephone has changed dialing protocols and all telephone calls to the PTO from outside Northern Virginia will require use of the area code (703).

Applicant is advised that as of October 13, 1990 C&P Telephone has changed **all examiners** telephone numbers at the PTO.

LECrane:lec

3/15/91

Johnnie R. Brown

JOHNNIE R. BROWN
SUPERVISORY PATENT EXAMINER
ART UNIT 183